Appendix B. Arizona's Statute and Rules for Impaired Waters

ARIZONA'S REVISED STATUTES
ARTICLE 2.1 TOTAL MAXIMUM DAILY LOADS
49-231 TO 49-238 (effective July 2000)

49-231. Definitions

In this article, unless the context otherwise requires:

1. "Impaired water" means a navigable water for which credible scientific data exists that satisfies the requirements of section 49-232 and that demonstrates that the water should be identified pursuant to 33 United States Code section 1313(d) and the regulations implementing that statute.
2. "Surface water quality standard" means a standard adopted for a navigable water pursuant to sections 49-221 and 49-222 and section 303(c) of the clean water act (33 United States Code section 1313(c)).
3. "TMDL implementation plan" means a written strategy to implement a total maximum daily load that is developed for an impaired water. TMDL implementation plans may rely on any combination of the following components that the department determines will result in achieving and maintaining compliance with applicable surface water quality standards in the most cost-effective and equitable manner:
(a) Permit limitations.
(b) Best management practices.
(c) Education and outreach efforts.
(d) Technical assistance.
(e) Cooperative agreements, voluntary measures and incentive-based programs.
(f) Load reductions resulting from other legally required programs or activities.
(g) Land management programs.
(h) Pollution prevention planning, waste minimization or pollutant trading agreements.
(i) Other measures deemed appropriate by the department.
4. "Total maximum daily load" means an estimation of the total amount of a pollutant from all sources that may be added to a water while still allowing the water to achieve and maintain applicable surface water quality standards. Each total maximum daily load shall include allocations for sources that contribute the pollutant to the water, as required by section 303(d) of the clean water act (33 United States Code section 1313(d)) and regulations implementing that statute to achieve applicable surface water quality standards.

49-232. Lists of impaired waters; data requirements; rules

A. At least once every five years, the department shall prepare a list of impaired waters for the purpose of complying with section 303(d) of the clean water act (33 United States Code section 1313(d)). The department shall provide public notice and allow for comment on a draft list of impaired waters prior to its submission to the united states environmental protection agency. The department shall prepare written responses to comments received on the draft list. The department shall publish the list of impaired waters that it plans to submit initially to the regional administrator and a summary of the responses to comments on the draft list in the Arizona administrative register at least forty-five days before submission of the list to the regional administrator. Publication of the list in the Arizona administrative register is an appealable agency action pursuant to title 41, chapter 6, article 10 that may be appealed by any party that submitted written comments on the draft list. If the department receives a notice of appeal of a listing pursuant to section 41-1092, subsection B within forty-five days of the publication of the list in the Arizona administrative register, the department shall not include the challenged listing in its initial submission to the regional administrator. The department may subsequently submit the challenged listing to the regional administrator if the listing is upheld in the director's final administrative decision pursuant to section 41-1092.08, or if the challenge to the listing is withdrawn prior to a final administrative decision.

B. In determining whether a water is impaired, the department shall consider only reasonably current credible and scientifically defensible data that the department has collected or has received from another source. Results of water sampling or other assessments of water quality, including physical or biological health, shall be considered credible and scientifically defensible data only if the department has determined all of the following:
1. Appropriate quality assurance and quality control procedures were followed and documented in collecting and analyzing the data.
2. The samples or analyses are representative of water quality conditions at the time the data was collected.
3. The data consists of an adequate number of samples based on the nature of the water in question and the parameters being analyzed.
4. The method of sampling and analysis, including analytical, statistical and modeling methods, is generally accepted and validated in the scientific community as appropriate for use in assessing the condition of the water.

C. The department shall adopt by rule the methodology to be used in identifying waters as impaired. The rules shall specify all of the following:

1. Minimum data requirements and quality assurance and quality control requirements that are consistent with subsection B of this section and that must be satisfied in order for the data to serve as the basis for listing and delisting decisions.
2. Appropriate sampling, analytical and scientific techniques that may be used in assessing whether a water is impaired.
3. Any statistical or modeling techniques that the department uses to assess or interpret data.
4. Criteria for including and removing waters from the list of impaired waters, including any implementation procedures developed pursuant to subsection F of this section. The criteria for removing a water from the list of impaired waters shall not be any more stringent than the criteria for adding a water to that list.

D. In assessing whether a water is impaired, the department shall consider the data available in light of the nature of the water in question, including whether the water is an ephemeral water. A water in which pollutant loadings from naturally occurring conditions alone are sufficient to cause a violation of applicable surface water quality standards shall not be listed as impaired.

E. If the department has adopted a numeric surface water quality standard for a pollutant and that standard is not being exceeded in a water, the department shall not list the water as impaired based on a conclusion that the pollutant causes a violation of a narrative or biological standard unless:
1. The department has determined that the numeric standard is insufficient to protect water quality.
2. The department has identified specific reasons that are appropriate for the water in question, that are based on generally accepted scientific principles and that support the department's determination.

F. Before listing a navigable water as impaired based on a violation of a narrative or biological surface water quality standard and after providing an opportunity for public notice and comment, the department shall adopt implementation procedures that specifically identify the objective basis for determining that a violation of the narrative or biological criterion exists. A total maximum daily load designed to achieve compliance with a narrative or biological surface water quality standard shall not be adopted until the implementation procedure for the narrative or biological surface water quality standard has been adopted.

G. On request, the department shall make available to the public data used to support the listing of a water as impaired and may charge a reasonable fee to persons requesting the data.

H. By January 1, 2002, the department shall review the list of waters identified as impaired as of January 1, 2000 to determine whether the data that supports the listing of those waters complies with this section. If the data that supports a listing does not comply with this section, the listed water shall not be included on future lists submitted to the United States environmental protection agency pursuant to 33 United States Code section 1313(d) unless in the interim data that satisfies the requirements of this section has been collected or received by the department.

I. The department shall add a water to or remove a water from the list using the process described in section 49-232, subsection A outside of the normal listing cycle if it collects or receives credible and scientifically defensible data that satisfies the requirements of this section and that demonstrates that the current quality of the water is such that it should be removed from or added to the list. A listed water may no longer warrant classification as impaired or an unlisted water may be identified as impaired if the applicable surface water quality standards, implementation procedures or designated uses have changed or if there is a change in water quality.

49-233. <u>Priority ranking and schedule</u>
A. Each list developed by the department pursuant to section 49-232 shall contain a priority ranking of navigable waters identified as impaired and for which total maximum daily loads are required pursuant to section 49-234 and a schedule for the development of all required total maximum daily loads.

B. In the first list submitted to the United States environmental protection agency after the effective date of this article, the schedule shall be sufficient to ensure that all required total maximum daily loads will be developed within fifteen years of the date the list is approved by the environmental protection agency. Total maximum daily loads that are required to be developed for navigable waters that are included for the first time on subsequent lists shall be developed within fifteen years of the initial inclusion of the water on the list.

C. As part of the rule making prescribed by section 49-232, subsection C, the department shall identify the factors that it will use to prioritize navigable waters that require development of total maximum daily loads. At a minimum and to the extent relevant data is available, the department shall consider the following factors in prioritizing navigable waters for development of total maximum daily loads:
1. The designated uses of the navigable water.
2. The type and extent of risk from the impairment to human health or aquatic life.
3. The degree of public interest and support, or its lack.
4. The nature of the navigable water, including whether it is an ephemeral,

intermittent or effluent-dependent water.
5. The pollutants causing the impairment.
6. The severity, magnitude and duration of the violation of the applicable surface water quality standard.
7. The seasonal variation caused by natural events such as storms or weather patterns.
8. Existing treatment levels and management practices.
9. The availability of effective and economically feasible treatment techniques, management practices or other pollutant loading reduction measures.
10. The recreational and economic importance of the water.
11. The extent to which the impairment is caused by discharges or activities that have ceased.
12. The extent to which natural sources contribute to the impairment.
13. Whether the water is accorded special protection under federal or state water quality law.
14. Whether action that is taken or that is likely to be taken under other programs, including voluntary programs, is likely to make significant progress toward achieving applicable standards even if a total maximum daily load is not developed.
15. The time expected to be required to achieve compliance with applicable surface water quality standards.
16. The availability of documented, effective analytical tools for developing a total maximum daily load for the water with reasonable accuracy.
17. Department resources and programmatic needs.

49-234. Total maximum daily loads; implementation plans

A. The department shall develop total maximum daily loads for those navigable waters listed as impaired pursuant to this article and for which total maximum daily loads are required to be adopted pursuant to 33 United States Code section 1313(d) and the regulations implementing that statute. The department may estimate total maximum daily loads for navigable waters not listed as impaired pursuant to this article, for the purposes of developing information to satisfy the requirements of 33 United States Code section 1313(d)(3), only after it has developed total maximum daily loads for all navigable waters identified as impaired pursuant to this article or if necessary to support permitting of new point source discharges.

B. In developing total maximum daily loads, the department shall use only statistical and modeling techniques that are properly validated and broadly accepted by the scientific community. The modeling technique may vary based on the type of water and the quantity and quality of available data that meets the quality assurance and quality control requirements of section 49-232. The department may establish the statistical and modeling techniques in rules adopted pursuant to section 49-232, subsection C.

C. Each total maximum daily load shall:
1. Be based on data and methodologies that comply with section 49-232.
2. Be established at a level that will achieve and maintain compliance with applicable surface water quality standards.
3. Include a reasonable margin of safety that takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality. The margin of safety shall not be used as a substitute for adequate data when developing the total maximum daily load.
4. Account for seasonal variations that may include setting total maximum daily loads that apply on a seasonal basis.

D. For each impaired water, the department shall prepare a draft estimate of the total amount of each pollutant that causes the impairment from all sources and that may be added to the navigable water while still allowing the navigable water to achieve and maintain applicable surface water quality standards. The department shall provide public notice and allow for comment on each draft estimate and shall prepare written responses to comments received on the draft estimates. The department shall publish the determinations of total pollutant loadings that will not result in impairment that it intends to submit initially to the regional administrator, along with a summary of the responses to comments on the estimated loadings, in the Arizona administrative register at least forty-five days before submission of the loadings to the regional administrator. Publication of the loadings in the administrative register is an appealable agency action pursuant to title 41, chapter 6, article 10 that may be appealed by any party that submitted written comments on the estimated loadings. If the department receives a notice of appeal of a loading pursuant to section 41-1092, subsection B within forty-five days of the publication of the loading in the Arizona administrative register, the department shall not submit the challenged loading to the regional administrator until either the challenge to the loading is withdrawn or the director has made a final administrative decision pursuant to section 41-1092.08.

E. After each final loading pursuant to subsection D of this section is adopted and consistent with subsection F of this section, the department shall determine draft allocations among the contributing sources that are sufficient to achieve the total loading established pursuant to subsection D of this section. the department's proposed determination of allocations shall be subject to public notice and comment. The department shall prepare written responses to comments received on the draft allocations. After consideration of public comment received, the department shall publish the allocations and a summary of the responses to comments in the Arizona administrative register. The

publication shall occur at least forty-five days before submission of the allocations to the regional administrator, if such submission is required by the rules implementing 33 United States Code section 1313(d). Publication of the allocations in the Arizona administrative register is an appealable agency action pursuant to title 41, chapter 6, article 10 that may be appealed by any party that submitted written comments on the draft allocations. If the department receives a notice of appeal of an allocation pursuant to section 41-1092, subsection B within forty-five days of the publication of the allocation in the Arizona administrative register, the department shall not take further action on the challenged allocation, or submit it to the regional administrator if such submission is required by the rules implementing 33 United States Code section 1313(d), until either the challenge to the loading is withdrawn or the director has made a final administrative decision pursuant to section 41-1092.08.

F. The department shall make reasonable and equitable allocations among sources when developing total maximum daily loads. At a minimum, the department shall consider the following factors in making allocations:
1. The environmental, economic and technological feasibility of achieving the allocation.
2. The cost and benefit associated with achieving the allocation.
3. Any pollutant loading reductions that are reasonably expected to be achieved as a result of other legally required actions or voluntary measures.

G. For each total maximum daily load, the department shall establish a TMDL implementation plan that explains how the allocations and any reductions in existing pollutant loadings will be achieved. Any reductions in loadings from nonpoint sources shall be achieved voluntarily. The department shall provide for public notice and comment on each TMDL implementation plan. Any sampling or monitoring components of a TMDL implementation plan shall comply with section 49-232.

H. Each TMDL implementation plan shall provide the time frame in which compliance with applicable surface water quality standards is expected to be achieved. The plan may include a phased process with interim targets for load reductions. Longer time frames are appropriate in situations involving multiple dischargers, technical, legal or economic barriers to achieving necessary load reductions, scientific uncertainty regarding data quality or modeling, significant loading from natural sources or significant loading resulting from discharges or activities that have already ceased.

I. For navigable waters that are impaired due in part to historical factors that are difficult to address, including contaminated sediments, the department shall consider those historical factors in determining allocations for existing point source discharges of the pollutant or pollutants that cause the impairment. In developing total maximum daily loads for those navigable waters, the department shall use a phased approach in which expected long-term loading reductions from the historical sources are considered in establishing short-term allocations for the point sources. While total maximum daily loads and TMDL implementation plans are being completed, any permits issued for the point sources are deemed consistent with this article if the permits require reasonable reductions in the discharges of the pollutants causing the impairment and are not required to include additional reductions if those reductions would not significantly contribute to attainment of surface water quality standards.

J. After a total maximum daily load and a TMDL implementation plan have been adopted for a navigable water, the department shall review the status of the navigable water at least once every five years to determine if compliance with applicable surface water quality standards has been achieved. If compliance with applicable surface water quality standards has not been achieved, the department shall evaluate whether modification of the total maximum daily load or TMDL implementation plan is required.

49-235. Rules
The department shall adopt any rules necessary to implement this article.

49-236. Report
By September 1, 2005, the department shall submit a report to the governor, the speaker of the house of representatives and the president of the senate detailing progress made under this program and shall provide a copy to the secretary of state and the department of library, archives and public records. At a minimum, the report shall:
1. Evaluate the effectiveness of the total maximum daily load program and identify any recommended statutory changes to make the program more efficient, effective and equitable.
2. Assess the extent to which water quality problems that cannot be effectively addressed under the total maximum daily load program may be addressed under other federal or state laws.
3. Identify the number of appeals of department decisions under this article sought pursuant to title 41, chapter 6, article 10 and the disposition of those appeals, and assess the impact of those appeals on the department's ability to administer the program effectively.

49-237. Impact of successful judicial appeal of Arizona Department of Environmental Quality decision
If a person appeals to court and succeeds in overturning or modifying a final administrative decision of the director pursuant to this article in an appeal

initiated pursuant to title 41, chapter 6, article 10, within thirty days of the court's decision the department shall take the steps necessary to implement the court's decision, unless the director's decision that is overturned or modified was submitted to and approved by the regional administrator, in which case within thirty days of the court's decision the department shall request that the regional administrator modify the approval to reflect the court's decision.

49-238. Program termination

The program established by this article ends on July 1, 2010 pursuant to section 41-3102.

TITLE 18. ENVIRONMENTAL QUALITY
CHAPTER 11. DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY STANDARDS

ARTICLE 6. IMPAIRED WATER IDENTIFICATION

R18-11-601. Definitions

In addition to the definitions established in A.R.S. §§ 49-201 and 49-231, and A.A.C. R18-11-101, the following terms apply to this Article:

1. "303(d) List" means the list of surface waters or segments required under section 303(d) of the Clean Water Act and A.R.S. Title 49, Chapter 2, Article 2.1, for which TMDLs are developed and submitted to EPA for approval.
2. "Attaining" means there is sufficient, credible, and scientifically defensible data to assess a surface water or segment and the surface water or segment does not meet the definition of impaired or not attaining.
3. "AZPDES" means the Arizona Pollutant Elimination Discharge System.
4. "Credible and scientifically defensible data" means data submitted, collected, or analyzed using:
    a. Quality assurance and quality control procedures under A.A.C. R18-11-602;
    b. Samples or analyses representative of water quality conditions at the time the data were collected;
    c. Data consisting of an adequate number of samples based on the nature of the water in question and the parameters being analyzed; and
    d. Methods of sampling and analysis, including analytical, statistical, and modeling methods that are generally accepted and validated by the scientific community as appropriate for use in assessing the condition of the water.
5. "Designated use" means those uses specified in 18 A.A.C. 11, Article 1 for each surface water or segment whether or not they are attaining.
6. "EPA" means the U.S. Environmental Protection Agency.
7. "Impaired water" means a Navigable water for which credible scientific data exists that satisfies the requirements of § 49-232 and that demonstrates that the water should be identified pursuant to 33 United States Code § 1313(d) and the regulations implementing that statute. A.R.S. § 49-231(1).
8. "Laboratory detection limit" means a "Method Reporting Limit" (MRL) or "Reporting Limit" (RL). These analogous terms describe the laboratory reported value, which is the lowest concentration level included on the calibration curve from the analysis of a pollutant that can be quantified in terms of precision and accuracy.
9. "Monitoring entity" means the Department or any person who collects physical, chemical, or biological data used for an impaired water identification or

a TMDL decision.
10. "Naturally occurring condition" means the condition of a surface water or segment that would have occurred in the absence of pollutant loadings as a result of human activity.
11. "Not attaining" means a surface water is assessed as impaired, but is not placed on the 303(d) List because:
    a. A TMDL is prepared and implemented for the surface water;
    b. An action, which meets the requirements of R18-11-604(D)(2)(h), is occurring and is expected to bring the surface water to attaining before the next 303(d) List submission; or
    c. The impairment of the surface water is due to pollution but not a pollutant, for which a TMDL load allocation cannot be developed.
12. "NPDES" means National Pollutant Discharge Elimination System.
13. "Planning List" means a list of surface waters and segments that the Department will review and evaluate to determine if the surface water or segment is impaired and whether a TMDL is necessary.
14. "Pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. 33 U.S.C. 1362(6). Characteristics of water, such as dissolved oxygen, pH, temperature, turbidity, and suspended sediment are considered pollutants if they result or may result in the non-attainment of a water quality standard.
15. "Pollution" means "the man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water. 33 U.S.C. 1362(19).
16. "QAP" means a quality assurance plan detailing how environmental data operations are planned, implemented, and assessed for quality during the duration of a project.
17. "Sampling event" means one or more samples taken under consistent conditions on one or more days at a distinct station or location.
18. "SAP" means a site specific sampling and analysis plan that describes the specifics of sample collection to ensure that data quality objectives are met and that samples collected and analyzed are representative of surface water conditions at the time of sampling.
19. "Spatially independent sample" means a sample that is collected at a distinct station or location. The sample is independent if the sample was collected:
    a. More than 200 meters apart from other samples, or
    b. Less than 200 meters apart, and collected to characterize the effect of an intervening tributary, outfall or other pollution source, or significant hydrographic or hydrologic change.
20. "Temporally independent sample" means a sample that is collected at the same station or location more than seven days apart from other samples.
21. "Threatened" means that a surface water or segment is currently attaining its designated use, however, trend analysis, based on credible and scientifically defensible data, indicates that the surface water or segment is likely to be impaired before the next listing cycle.
22. "TMDL" means total maximum daily load.
23. "TMDL decision" means a decision by the Department to:
    a. Prioritize an impaired water for TMDL development,
    b. Develop a TMDL for an impaired water, or
    c. Develop a TMDL implementation plan.
24. "Total maximum daily load" means an estimation of the total amount of a pollutant from all sources that may be added to a water while still allowing the water to achieve and maintain applicable surface water quality standards. Each total maximum daily load shall include allocations for sources that contribute the pollutant to the water, as required by section 303(d) of the clean water act (33 United States Code section 1313(d)) and regulations implementing that statute to achieve applicable surface water quality standards. A.R.S. § 49-231(4).
25. "Water quality standard" means a standard composed of designated uses (classification of waters), the numerical and narrative criteria applied to the specific water uses or classification, the antidegradation policy, and moderating provisions, for example, mixing zones, site-specific alternative criteria, and exemptions, in A.A.C. Title 18, Chapter 11, Article 1.
26. "WQARF" means the water quality assurance revolving fund established under A.R.S. § 49-282.

R18-11-602. <u>Credible Data</u>

A. Data are credible and relevant to an impaired water identification or a TMDL decision when:
    1. <u>Quality Assurance Plan</u>. A monitoring entity, which contribute data for an impaired water identification or a TMDL decision, provides the Department with a QAP that contains, at a minimum, the elements listed in subsections (A)(1)(a) through (A)(1)(f). The Department may accept a QAP containing less than the required elements if the Department determines that an element is not relevant to the sampling activity and that its omission will not impact the quality of the results based upon the type of pollutants to be sampled, the type of surface water, and the purpose of the sampling.
    a. An approval page that includes the date of approval and the signatures of the approving officials, including the project manager and project quality assurance manager;
    b. A project organization outline that identifies all key personnel, organizations, and laboratories involved in monitoring, including the specific roles and responsibilities of key personnel in carrying out the

procedures identified in the QAP and SAP, if applicable;

c. Sampling design and monitoring data quality objectives or a SAP that meets the requirements of subsection (A)(2) to ensure that:

i. Samples are spatially and temporally representative of the surface water,

ii. Samples are representative of water quality conditions at the time of sampling, and

iii. The monitoring is reproducible;

d. The following field sampling information to assure that samples meet data quality objectives:

i. Sampling and field protocols for each parameter or parametric group, including the sampling methods, equipment and containers, sample preservation, holding times, and any analysis proposed for completion in the field or outside of a laboratory;

ii. Field and laboratory methods approved under subsection(A)(5);

iii. Handling procedures to identify samples and custody protocols used when samples are brought from the field to the laboratory for analysis;

iv. Quality control protocols that describe the number and type of field quality control samples for the project that includes, if appropriate for the type of sampling being conducted, field blanks, travel blanks, equipment blanks, method blanks, split samples, and duplicate samples;

v. Procedures for testing, inspecting, and maintaining field equipment;

vi. Field instrument calibration procedures that describe how and when field sampling and analytical instruments will be calibrated;

vii. Field notes and records that describe the conditions that require documentation in the field, such as weather, stream flow, transect information, distance from water edge, water and sample depth, equipment calibration measurements, field observations of watershed activities, and bank conditions. Indicate the procedures implemented for maintaining field notes and records and the process used for attaching pertinent information to monitoring results to assist in data interpretation;

viii. Minimum training and any specialized training necessary to do the monitoring, that includes the proper use and calibration of field equipment used to collect data, sampling protocols, quality assurance/quality control procedures, and how training will be achieved;

e. Laboratory analysis methods and quality assurance/quality control procedures that assure that samples meet data quality objectives, including:

i. Analytical methods and equipment necessary for analysis of each parameter, including identification of approved laboratory methods described in subsection (A)(5), and laboratory detection limits for each parameter;

ii. The name of the designated laboratory, its license number, if licensed by the Arizona Department of Health Services, and the name of a laboratory contact person to assist the Department with quality assurance questions;

iii. Quality controls that describe the number and type of laboratory quality control samples for the project, including, if appropriate for the type of sampling being conducted, field blanks, travel blanks, equipment blanks, method blanks, split samples, and duplicate samples;

iv. Procedures for testing, inspecting, and maintaining laboratory equipment and facilities;

v. A schedule for calibrating laboratory instruments, a description of calibration methods, and a description of how calibration records are maintained; and

vi. Sample equipment decontamination procedures that outline specific methods for sample collection and preparation of equipment, identify the frequency of decontamination, and describe the procedures used to verify decontamination;

f. Data review, management, and use that includes the following:

i. A description of the data handling process from field to laboratory, from laboratory to data review and validation, and from validation to data storage and use. Include the role and responsibility of each person for each step of the process, type of database or other storage used, and how laboratory and field data qualifiers are related to the laboratory result;

ii. Reports that describe the intended frequency, content, and distribution of final analysis reports and project status reports;

iii. Data review, validation, and verification that describes the procedure used to validate and verify data, the procedures used if errors are detected, and how data are accepted, rejected, or qualified; and

iv. Reconciliation with data quality objectives that describes the process used to determine whether the data collected meets the project objectives, which may include discarding data, setting limits on data use, or revising data quality objectives.

2. Sampling and analysis plan.

a. A monitoring entity shall develop a SAP that contains, at a minimum, the following elements:

i. The experimental design of the project, the project goals and objectives, and evaluation criteria for data results;

ii. The background or historical perspective of the project;

iii. Identification of target conditions, including a discussion of whether any weather, seasonal variations, stream flow, lake level, or site access may affect the project and the consideration of these factors;

iv. The data quality objectives for measurement of data that describe in quantitative and qualitative terms how the data meet the project objectives of precision, accuracy, completeness, comparability, and representativeness;

v. The types of samples scheduled for collection;

vi. The sampling frequency;

vii. The sampling periods;

viii. The sampling locations and rationale for the site selection, how site locations are benchmarked, including scaled maps indicating approximate location of sites; and

ix. A list of the field equipment, including tolerance range and any other manufacturer's specifications relating to accuracy and precision.

b. The Department may accept a SAP containing less than the required elements if the Department determines that an element is not relevant to the sampling activity and that its omission will not impact the quality of the results based upon the type of pollutants to be samples, the type of surface water, and the purpose of the sampling.

3. [Options] The monitoring entity may include any of the following in the QAP or SAP:

a. The name, title, and role of each person and organization involved in the project, identifying specific roles and responsibilities for carrying out the procedures identified in the QAP and SAP;

b. A distribution list of each individual and organization receiving a copy of the approved QAP and SAP;

c. A table of contents;

d. A health and safety plan;

e. The inspection and acceptance requirements for supplies;

f. The data acquisition that describes types of data not obtained through this monitoring activity, but used in the project;

g. The audits and response actions that describe how field, laboratory, and data management activities and sampling personnel are evaluated to ensure data quality, including a description of how the project will correct any problems identified during these assessments; and

h. The waste disposal methods that identify wastes generated in sampling and methods for disposal of those wastes.

4. Exceptions. The Department may determine that the following data are also credible and relevant to an impaired water identification or TMDL decision when data were collected, provided the conditions in subsections (A)(5), (A)(6), and (B) are met, and where the data were collected in the surface water or segment being evaluated for impairment:

a. The data were collected before July 12, 2002 and the Department determines that the data yield results of comparable reliability to the data collected under subsections (A)(1) and (A)(2);

b. The data were collected after July 12, 2002 as part of an ongoing monitoring effort by a governmental agency and the Department determines that the data yield results of comparable reliability to the data collected under subsections (A)(1) and (A)(2); or

c. The instream water quality data were or are collected under the terms of a NPDES or AZPDES permit or a compliance order issued by the Department or EPA, a consent decree signed by the Department or EPA, or a sampling program approved by the Department or EPA under WQARF or CERCLA, and the Department determines that the data yield results of comparable reliability to data collected under subsections (A)(1) and (A)(2).

5. Data collection, preservation, and analytical procedures. The monitoring entity shall collect, preserve, and analyze data using methods of sample collection, preservation, and analysis established under A.A.C. R9-14-610.

6. Laboratory. The monitoring entity shall ensure that chemical and toxicological samples are analyzed in a state-licensed laboratory, a laboratory exempted by the Arizona Department of Health Services for specific analyses, or a federal or academic laboratory that can demonstrate proper quality assurance/quality control procedures substantially equal to those required by the Arizona Department of Health Services, and shall ensure that the laboratory uses approved methods identified in A.A.C. R9-14--610.

B. Documentation for data submission. The monitoring entity shall provide the Department with the following information either before or with data submission:

1. A copy of the QAP or SAP, or both, revisions to a previously submitted QAP or SAP, and any other information necessary for the Department to evaluate the data under subsection (A)(4);

2. The applicable dates of the QAP and SAP, including any revisions;

3. Written assurance that the methods and procedures specified in the QAP and SAP were followed;
4. The name of the laboratory used for sample analyses and its certification number, if the laboratory is licensed by the Arizona Department of Health Services;
5. The quality assurance/quality control documentation, including the analytical methods used by the laboratory, method number, detection limits, and any blank, duplicate, and spike sample information necessary to properly interpret the data, if different from that stated in the QAP or SAP;
6. The data reporting unit of measure;
7. Any field notes, laboratory comments, or laboratory notations concerning a deviation from standard procedures, quality control, or quality assurance that affects data reliability, data interpretation, or data validity; and
8. Any other information, such as complete field notes, photographs, climate, or other information related to flow, field conditions, or documented sources of pollutants in the watershed, if requested by the Department for interpreting or validating data.

C. Record keeping. The monitoring entity shall maintain all records, including sample results, for the duration of the listing cycle. If a surface water or segment is added to the Planning List or to the 303(d) List, the Department shall coordinate with the monitoring entity to ensure that records are kept for the duration of the listing.

R18-11-603. General Data Interpretation Requirements

A. The Department shall use the following data conventions to interpret data for impaired water identifications and TMDL decisions:
1. Data reported below laboratory detection limits.
a. When the analytical result is reported as <X, where X is the laboratory detection limit for the analyte and the laboratory detection limit is less than or equal to the surface water quality standard, consider the result as meeting the water quality standard:
i. Use these statistically derived values in trend analysis, descriptive statistics or modeling if there is sufficient data to support the statistical estimation of values reported as less than the laboratory detection limit; or
ii. Use one-half of the value of the laboratory detection limit in trend analysis, descriptive statistics, or modeling, if there is insufficient data to support the statistical estimation of values reported as less than the laboratory detection limit.
b. When the sample value is less than or equal to the laboratory detection limit but the laboratory detection limit is greater than the surface water quality standard, shall not use the result for impaired water identifications or TMDL decisions;
2. Identify the field equipment specifications used for each listing cycle or TMDL developed. A field sample measurement within the manufacturer's specification for accuracy meets surface water quality standards;
3. Resolve a data conflict by considering the factors identified under the weight-of-evidence determination in R18-11-605(B);
4. When multiple samples from a surface water or segment are not spatially or temporally independent, or when lake samples are from multiple depths, use the following resultant value to represent the specific dataset:
a. The appropriate measure of central tendency for the dataset for:
i. A pollutant listed in the surface water quality standards 18 A.A.C. 11, Article 1, Appendix A, Table 1, except for nitrate or nitrate/nitrite;
ii. A chronic water quality standard for a pollutant listed in 18 A.A.C. 11, Article 1, Appendix A, Table 2;
iii. A surface water quality standard for a pollutant that is expressed as an annual or geometric mean;
iv. The surface water quality standard for temperature or the single sample maximum water quality standard for suspended sediment concentration, nitrogen, and phosphorus in R18-11-109;
v. The surface water quality standard for radiochemicals in R18-11-109(G); or
vi. Except for chromium, all single sample maximum water quality standards in R18-11-112.
b. The maximum value of the dataset for:
i. The acute water quality standard for a pollutant listed in 18 A.A.C. 11, Article 1, Appendix A, Table 2 and acute water quality standard in R18-11-112;
ii. The surface water quality standard for nitrate or nitrate/nitrite in 18 A.A.C. 11, Article 1, Appendix A, Table 1;
iii. The single sample maximum water quality standard for bacteria in subsections R18-11-109(A); or
iv. The 90th percentile water quality standard for nitrogen and phosphorus in R18-11-109(F) and R18-11-112.
c. The worst case measurement of the dataset for:
i. Surface water quality standard for dissolved oxygen under R18-11-109(E). For purposes of this subsection, worst case

measurement means the minimum value for dissolved oxygen;
ii. Surface water quality standard for pH under R18-11-109(B). For purposes of this subsection, "worst case measurement" means both the minimum and maximum value for pH.

B. The Department shall not use the following data for placing a surface water or segment on the Planning List, the 303(d) List, or in making a TMDL decision.

1. Any measurement outside the range of possible physical or chemical measurements for the pollutant or measurement equipment,
2. Uncorrected data transcription errors or laboratory errors, and
3. An outlier identified through statistical procedures, where further evaluation determines that the outlier represents a valid measure of water quality but should be excluded from the dataset.

C. The Department may employ fundamental statistical tests if appropriate for the collected data and type of surface water when evaluating a surface water or segment for impairment or in making a TMDL decision. The statistical tests include descriptive statistics, frequency distribution, analysis of variance, correlation analysis, regression analysis, significance testing, and time series analysis.

D. The Department may employ modeling when evaluating a surface water or segment for impairment or in making a TMDL decision, if the method is appropriate for the type of waterbody and the quantity and quality of available data meet the requirements of R18-11-602. Modeling methods include:

a. Better Assessment Science Integrating Source and Nonpoint Sources (BASINS),
b. Fundamental statistics, including regression analysis,
c. Hydrologic Simulation Program-Fortran (HSPF),
d. Spreadsheet modeling, and
e. Hydrologic Engineering Center (HEC) programs developed by the Army Corps of Engineers.

R18-11-604. Types of Surface Waters Placed on the Planning List and 303(d) List

A. The Department shall evaluate, at least every five years, Arizona's surface waters by considering all readily available data.

1. The Department shall place a surface water or segment on:
a. The Planning List if it meets any of the criteria described in subsection (D),or
b. The 303(d) List if it meets the criteria for listing described in subsection (E).
2. The Department shall remove a surface water or segment from the Planning List based on the requirements in R18-11-605(E)(1) or from the 303(d) List, based on the requirements in R18-11-605(E)(2).
3. The Department may move surface waters or segments between the Planning List and the 303(d) List based on the criteria established in R18-11-604 and R18-11-605.

B. When placing a surface water or segment on the Planning List or the 303(d) List, the Department shall list the stream reach, derived from EPA's Reach File System *or National Hydrography Dataset*, or the entire lake, unless the data indicate that only a segment of the stream reach or lake is impaired or not attaining its designated use, in which case, the Department shall describe only that segment for listing.

C. Exceptions. The Department shall not place a surface water or segment on either the Planning List or the 303(d) List if the non-attainment of a surface water quality standard is due to one of the following:

1. Pollutant loadings from naturally occurring conditions alone are sufficient to cause a violation of applicable water quality standards;
2. The data were collected within a mixing zone or under a variance or nutrient waiver established in a NPDES or AZPDES permit for the specific parameter and the result does not exceed the alternate discharge limitation established in the permit. The Department may use data collected within these areas for modeling or allocating loads in a TMDL decision; or
3. An activity exempted under R18-11-117, R18-11-118, or a condition exempted under R18-11-119.

D. Planning List.

1. The Department shall:
a. Use the Planning List to prioritize surface waters for monitoring and evaluation as part of the Department's watershed management approach;
b. Provide the Planning List to EPA; and
c. Evaluate each surface water and segment on the Planning List for impairment based on the criteria in R18-11-605(D) to determine the source of the impairment.
2. The Department shall place a surface water or segment on the Planning List based the criteria in R18-11-605(C). The Department may also include a surface water or segment on the Planning List when:
a. A TMDL is completed for the pollutant and approved by EPA;
b. The surface water or segment is on the 1998 303(d) List but the

dataset used for the listing:

i. Does not meet the credible data requirements of R18-11-602, or

ii. Contains insufficient samples to meet the data requirements under R18-11-605(D);

c. Some monitoring data exist but there are insufficient data to determine whether the surface water or segment is impaired or not attaining, including:

i. A numeric surface water quality standard is exceeded, but there are not enough samples or sampling events to fulfill the requirements of R18-11-605(D);

ii. Evidence exists of a narrative standard violation, but the amount of evidence is insufficient, based on narrative implementation procedures and the requirements of R18-11-605(D)(3);

iii. Existing monitoring data do not meet credible data requirements in R18-11-602; or

iv. A numeric surface water quality standard is exceeded, but there are not enough sample results above the laboratory detection limit to support statistical analysis as established in R18-11-603(A)(1).

d. The surface water or segment no longer meets the criteria for impairment based on a change in the applicable surface water quality standard or a designated use approved by EPA under section 303(c)(1) of the Clean Water Act, but insufficient current or original monitoring data exist to determine whether the surface water or segment will meet current surface water quality standards;

e. Trend analysis using credible and scientifically defensible data indicate that surface water quality standards may be exceeded by the next assessment cycle;

f. The exceedance of surface water quality standards is due to pollution, but not a pollutant;

g. Existing data were analyzed using methods with laboratory detection limits above the numeric surface water quality standard but analytical methods with lower laboratory detection limits are available;

h. The surface water or segment is expected to attain its designated use by the next assessment as a result of existing or proposed technology-based effluent limitations or other pollution control requirements under local, state, or federal authority. The appropriate entity shall provide the Department with the following documentation to support placement on the Planning List:

i. Verification that discharge controls are required and enforceable;

ii. Controls are specific to the surface water or segment, and pollutant of concern;

iii. Controls are in place or scheduled for implementation; and

iv. There are assurances that the controls are sufficient to bring about attainment of water quality standards by the next 303(d) List submission; or

i. The surface water or segment is threatened due to a pollutant and, at the time the Department submits a final 303(d) List to EPA, there are no federal regulations implementing section 303(d) of the Clean Water Act that require threatened waters be included on the list.

E. 303(d) List. The Department shall:

1. Place a surface water or segment on the 303(d) List if the Department determines:

a. Based on R18-11-605(D), that the surface water or segment is impaired due to a pollutant and that a TMDL decision is necessary; or

b. That the surface water or segment is threatened due to a pollutant and, at the time the Department submits a final 303(d) List to EPA, there are federal regulations implementing section 303(d) of the Clean Water Act that require threatened waters be included on the list.

2. Provide public notice of the 303(d) List according to the requirements of A.R.S. § 49-232 and submit the 303(d) List according to section 303(d) of the Clean Water Act.

R18-11-605. Evaluating A Surface Water or Segment For Listing and Delisting

A. The Department shall compile and evaluate all reasonably current, credible, and scientifically defensible data to determine whether a surface water or segment is impaired or not attaining.

B. Weight-of-evidence approach.

1. The Department shall consider the following concepts when evaluating data:

a. Data or information collected during critical conditions may be considered separately from the complete dataset, when the data show that the surface water or segment is impaired or not attaining its designated use during those critical conditions, but attaining its uses during other periods. Critical conditions may include stream flow, seasonal periods, weather conditions, or anthropogenic activities;

b. Whether the data indicate that the impairment is due to persistent, seasonal, or recurring conditions. If the data do not represent persistent, recurring, or seasonal conditions, the Department may place the surface water or segment on the Planning List;

c. Higher quality data over lower quality data when making a listing decision. Data quality is established by the reliability, precision, accuracy, and representativeness of the data, based on factors identified in R18-11-602(A) and (B), including monitoring methods, analytical methods, quality control procedures, and the documented field and laboratory quality control information submitted with the data. The Department shall consider the following factors when determining higher quality data:

i. The age of the measurements. Newer measurements are weighted heavier than older measurements, unless the older measurements are more representative of critical flow conditions;

ii. Whether the data provide a direct measure of an impact on a designated use. Direct measurements are weighted heavier than measurements of an indicator or surrogate parameter; or

iii. The amount or frequency of the measurements. More frequent data collection are weighted heavier than nominal datasets.

2. The Department shall evaluate the following factors to determine if the water quality evidence supports a finding that the surface water or segment is impaired or not attaining:

a. An exceedance of a numeric surface water quality standard based on the criteria in subsections (C)(1), (C)(2), (D)(1), and (D)(2);

b. An exceedance of a narrative surface water quality standard based on the criteria in subsections (C)(3) and (D)(3);

c. Additional information that determines whether a water quality standard is exceeded due to a pollutant, suspected pollutant, or naturally occurring condition:

i. Soil type, geology, hydrology, flow regime, biological community, geomorphology, climate, natural process, and anthropogenic influence in the watershed;

ii. The characteristics of the pollutant, such as its solubility in water, bioaccumulation potential, sediment sorption potential, or degradation characteristics, to assist in determining which data more accurately indicate the pollutant's presence and potential for causing impairment; and

iii. Available evidence of direct or toxic impacts on aquatic life, wildlife, or human health, such as fish kills and beach closures, where there is sufficient evidence that these impacts occurred due to water quality conditions in the surface water.

d. Other available water quality information, such as NPDES or AZPDES water quality discharge data, as applicable.

e. If the Department determines that a surface water or segment does not merit listing under numeric water quality standards based on criteria in subsections (C)(1), (C)(2), (D)(1), or (D)(2) for a pollutant, but there is evidence of a narrative standard exceedance in that surface water or segment under subsection (D)(3) as a result of the presence of the same pollutant, the Department shall list the surface water or segment as impaired only when the evidence indicates that the numeric water quality standard is insufficient to protect the designated use of the surface water or segment and the Department justifies the listing based on any of the following:

i. The narrative standard data provide a more direct indication of impairment as supported by professionally prepared and peer-reviewed publications;

ii. Sufficient evidence of impairment exists due to synergistic effects of pollutant combinations or site-specific environmental factors; or

iii. The pollutant is bioaccumulative, relatively insoluble in water, or has other characteristics that indicate it is occurring in the specific surface water or segment at levels below the laboratory detection limits, but at levels sufficient to result in an impairment.

3. The Department may consider a single line of water quality evidence when the evidence is sufficient to demonstrate that the surface water or segment is impaired or not attaining.

C. Planning List.

1. When evaluating a surface water or segment for placement on the Planning List.

a. Consider at least ten spatially or temporally independent samples collected over three or more temporally independent sampling events; and

b. Determine numeric water quality standards exceedances. The Department shall:

i. Place a surface water or segment on the Planning List following subsection (B), if the number of exceedances of a surface water quality standard is greater than or equal to the number listed in Table 1, which provides the number of exceedances that indicate a minimum of a 10 percent exceedance frequency with a minimum of a 80 percent confidence level using a binomial distribution for a given sample size; or

ii. For sample datasets exceeding those shown in **Table 1**, calculate the number of exceedances using the following

equation: (X$x* *n* , *p*) where *n* = number of samples; *p* = exceedance probability of 0.1; *x* = smallest number of exceedances required for listing with "*n*" samples; and confidence level $ 80 percent.

2. When there are less than ten samples, the Department shall place a surface water or segment on the Planning List following subsection (B), if three or more temporally independent samples exceed the following surface water quality standards:

a. The surface water quality standard for a pollutant listed in 18 A.A.C. 11, Article 1, Appendix A, Table 1, except for nitrate or nitrate/nitrite;

b. The surface water quality standard for temperature or the single sample maximum water quality standard for suspended sediment concentration, nitrogen, and phosphorus in R18-11-109;

c. The surface water quality standard for radiochemicals in R18-11-109(G);

d. The surface water quality standard for dissolved oxygen under R18-11-109(E);

e. The surface water quality standard for pH under R18-11-109(B); or

f. The following surface water quality standards in R18-11-112:

i. Single sample maximum standards for nitrogen and phosphorus,

ii. All metals except chromium, or

iii. Turbidity.

3. The Department shall place a surface water or segment on the Planning List if information in subsections (B)(2)(c), (B)(2)(d), and (B)(2)(e) indicates that a narrative water quality standard violation exists, but no narrative implementation procedure required under A.R.S. § 49-232(F) exists to support use of the information for listing.

D. 303(d) List.

1. When evaluating a surface water or segment for placement on the 303(d) List.

a. Consider at least 20 spatially or temporally independent samples collected over three or more temporally independent sampling events; and

b. Determine numeric water quality standards exceedances. The Department shall:

i. Place a surface water or segment on the 303(d) List, following subsection (B), if the number of exceedances of a surface water quality standard is greater than or equal to the number listed in Table 2, which provides the number of exceedances that indicate a minimum of a 10 percent exceedance frequency with a minimum of a 90 percent confidence level using a binomial distribution, for a given sample size; or

ii. For sample datasets exceeding those shown in Table 2, calculate the number of exceedances using the following equation: (X$x* *n* , *p*) where *n* = number of samples; *p* = exceedance probability of 0.1; *x* = smallest number of exceedances required for listing with "*n*" samples; and confidence level $ 90 percent.

2. The Department shall place a surface water or segment on the 303(d) List, following subsection (B) without the required number of samples or numeric water quality standard exceedances under subsection (D)(1), if either the following conditions occur:

a. More than one temporally independent sample in any consecutive three-year period exceeds the surface water quality standard in:

i. The acute water quality standard for a pollutant listed in 18 A.A.C. 11, Article 1, Appendix A, Table 2 and the acute water quality standards in R18-11-112;

ii. The surface water quality standard for nitrate or nitrate/nitrite in 18 A.A.C. 11, Article 1, Appendix A, Table 1; or

iii. The single sample maximum water quality standard for bacteria in subsections R18-11-109(A).

b. More than one exceedance of an annual mean, 90th percentile, aquatic and wildlife chronic water quality standard, or a bacteria 30-day geometric mean water quality standard occurs, as specified in R18-11-109, R18-11-110, R18-11-112, or 18 A.A.C. 11, Article 1, Appendix A, Table 2.

3. Narrative water quality standards exceedances. The Department shall place a surface water or segment on the Planning List if the listing requirements are met under A.R.S. § 49-232(F).

E. Removing a surface water, segment, or pollutant from the Planning List or the 303(d) List.

1. Planning List. The Department shall remove a surface water, segment, or pollutant from the Planning List when:

a. Monitoring activities indicate that:

i. There is sufficient credible data to determine that the surface water or segment is impaired under subsection (D), in which case the Department shall place the surface water or segment on the 303(d) List. This includes surface waters with an EPA approved TMDL when the Department determines that the TMDL strategy is insufficient for the surface water or segment to attain water quality standards; or

ii. There is sufficient credible data to determine that the surface water or segment is attaining all designated uses and standards.

b. All pollutants for the surface water or segment are delisted.

2. 303(d) List. The Department shall:

a. Remove a pollutant from a surface water or segment from the 303(d) List based on one or more of the following criteria:

i. The Department developed, and EPA approved, a TMDL for the pollutant;

ii. The data used for previously listing the surface water or segment under R18-11-605(D) is superseded by more recent credible and scientifically defensible data meeting the requirements of R18-11-602, showing that the surface water or segment meets the applicable numeric or narrative surface water quality standard. When evaluating data to remove a pollutant from the 303(d) List, the monitoring entity shall collect the more recent data under similar hydrologic or climatic conditions as occurred when the samples were taken that indicated impairment, if those conditions still exist;

iii. The surface water or segment no longer meets the criteria for impairment based on a change in the applicable surface water quality standard or a designated use approved by EPA under section 303(c)(1) of the Clean Water Act;

iv. The surface water or segment no longer meets the criteria for impairment for the specific narrative water quality standard based on a change in narrative water quality standard implementation procedures;

v. A re-evaluation of the data indicate that the surface water or segment does not meet the criteria for impairment because of a deficiency in the original analysis; or

vi. Pollutant loadings from naturally occurring conditions alone are sufficient to cause a violation of applicable water quality standards;

b. Remove a surface water, segment, or pollutant from the 303(d) List, based on criteria that are no more stringent than the listing criteria under subsection (D);

c. Remove a surface water or segment from the 303(d) List if all pollutants for the surface water or segment are removed from the list;

d. Remove a surface water, segment, or pollutant, from the 303(d) List and place it on the Planning List, if:

i. The surface water, segment or pollutant was on the 1998 303(d) List and the dataset used in the original listing does not meet the credible data requirements under R18-11-602, or contains insufficient samples to meet the data requirements under subsection (D); or

ii. The monitoring data indicate that the impairment is due to pollution, but not a pollutant.

R18-11-606. TMDL Priority Criteria for 303(d) Listed Surface Waters or Segments

A. In addition to the factors specified in A.R.S. § 49-233(C), the Department shall consider the following when prioritizing an impaired water for development of TMDLs:

1. A change in a water quality standard;
2. The date the surface water or segment was added to the 303(d) List;
3. The presence in a surface water or segment of species listed as threatened or endangered under section 4 of the Endangered Species Act;
4. The complexity of the TMDL;
5. State, federal, and tribal policies and priorities; and
6. The efficiencies of coordinating TMDL development with the Department's surface water monitoring program, the watershed monitoring rotation, or with remedial programs.

B. The Department shall prioritize an impaired surface water or segment for TMDL development based on the factors specified in A.R.S. § 49-233(C) and subsection (A) as follows:

1. Consider an impaired surface water or segment a high priority if:

a. The listed pollutant poses a substantial threat to the health and safety of humans, aquatic life, or wildlife based on:

i. The number and type of designated uses impaired;

ii. The type and extent of risk from the impairment to human health, aquatic life, or wildlife;

iii. The pollutant causing the impairment, or

iv. The severity, magnitude, and duration the surface water quality standard was exceeded;

b. A new or modified individual NPDES or AZPDES permit is sought for a new or modified discharge to the impaired water;

c. The listed surface water or segment is listed as a unique water in A.A.C. R18-11-112 or is part of an area classified as a "wilderness area," "wild and scenic river," or other federal or state special protection of the water resource;

d. The listed surface water or segment contains a species listed as threatened or endangered under the federal Endangered Species Act and the presence of the pollutant in the surface water or segment is likely to

jeopardize the listed species;
e. A delay in conducting the TMDL could jeopardize the Department's ability to gather sufficient credible data necessary to develop the TMDL;
f. There is significant public interest and support for the development of a TMDL;
g. The surface water or segment has important recreational and economic significance to the public; or
h. The pollutant is listed for eight years or more.
2. Consider an impaired surface water or segment a medium priority if:
a. The surface water or segment fails to meet more than one designated use;
b. The pollutant exceeds more than one surface water quality standard;
c. A surface water quality standard exceedance is correlated to seasonal conditions caused by natural events, such as storms, weather patterns, or lake turnover;
d. It will take more than two years for proposed actions in the watershed to result in the surface water attaining applicable water quality standards;
e. The type of pollutant and other factors relating to the surface water or segment make the TMDL complex; or
f. The administrative needs of the Department, including TMDL schedule commitments with EPA, permitting requirements, or basin priorities that require completion of the TMDL.
3. Consider an impaired surface water or segment a low priority if:
a. The Department has formally submitted a proposal to delist the surface water, segment ,or pollutant to EPA based on R18-11-605(E)(2). If the Department makes the submission outside the listing process cycle, the change in priority ranking will not be effective until EPA approves the submittal;
b. The Department has modified, or formally proposed for modification, the designated use or applicable surface water quality standard, resulting in an impaired water no longer being impaired, but the modification has not been approved by EPA;
c. The surface water or segment is expected to attain surface water quality standards due to any of the following:

i. Recently instituted treatment levels or best management practices in the drainage area,
ii. Discharges or activities related to the impairment have ceased, or
iii. Actions have been taken and controls are in place or scheduled for implementation that will likely to bring the surface water back into compliance;

d. The surface water or segment is ephemeral or intermittent. The Department shall re-prioritize the surface water or segment if the presence of the pollutant in the listed water poses a threat to the health and safety of humans, aquatic life, or wildlife using the water, or the pollutant is contributing to the impairment of a downstream perennial surface water or segment;
e. The pollutant poses a low ecological and human health risk;
f. Insufficient data exist to determine the source of the pollutant load;
g. The uncertainty of timely coordination with national and international entities concerning international waters;
h. Naturally occurring conditions are a major contributor to the impairment; and

i. No documentation or effective analytical tools exist to develop a TMDL for the surface water or segment with reasonable accuracy.

C. The Department will target surface waters with high priority factors in subsections (B)(1)(a) through (B)(1)(d) for initiation of TMDLs within two years following EPA approval of the 303(d) List.

D. The Department may shift priority ranking of a surface water or segment for any of the following reasons:

1. A change in federal, state, or tribal policies or priorities that affect resources to complete a TMDL;
2. Resource efficiencies for coordinating TMDL development with other monitoring activities, including the Department's ambient monitoring program that monitors watersheds on a 5-year rotational basis;
3. Resource efficiencies for coordinating TMDL development with Department remedial or compliance programs;
4. New information is obtained that will revise whether the surface water or segment is a high priority based on factors in subsection (B); and
5. Reduction or increase in staff or budget involved in the TMDL development.

E. The Department may complete a TMDL initiated before July 12, 2002 for a surface water or segment that was listed as impaired on the 1998 303(d) List but does not qualify for listing under the criteria in R18-11-605, if:

1. The TMDL investigation establishes that the water quality standard is not being met and the allocation of loads is expected to bring the surface water into compliance with standards,
2. The Department estimates that more than 50 percent of the cost of

completing the TMDL has been spent,
3. There is community involvement and interest in completing the TMDL, or
4. The TMDL is included within an EPA-approved state workplan initiated before July 12, 2002.

Table 1. [Planning List] Minimum Number of Samples Exceeding the Numeric Standard

Number of Samples		Number of Samples Exceeding Standard
From	To	
10	15	3
16	23	4
24	31	5
32	39	6
40	47	7
48	56	8
57	65	9
66	73	10
74	82	11
83	91	12
92	100	13
101	109	14
110	118	15
119	126	16
127	136	17
137	145	18
146	154	19
155	163	20
164	172	21
173	181	22

Number of Samples		Number of Samples Exceeding Standard
From	To	
182	190	23
191	199	24
200	208	25
209	218	26
219	227	27
228	236	28
237	245	29
246	255	30
256	264	31
265	273	32
274	282	33
283	292	34
293	301	35
302	310	36
311	320	37
321	329	38
330	338	39
339	348	40
349	357	41
358	367	42

Number of Samples		Number of Samples Exceeding Standard
From	To	
368	376	43
377	385	44
386	395	45
396	404	46
405	414	47
415	423	48
424	432	49
433	442	50
443	451	51
452	461	52
462	470	53
471	480	54
481	489	55
490	499	56
500		57
See calculation in R18-11-605.C.1.b.ii if dataset is larger than 500 samples.		

Table 2. [Impaired Waters] Minimum Number of Samples Exceeding the Numeric Standard

MINIMUM NUMBER OF SAMPLES EXCEEDING THE NUMERIC STANDARD								
Number of Samples		Number of Samples Exceeding Standard	Number of Samples		Number of Samples Exceeding Standard	Number of Samples		Number of Samples Exceeding Standard
From	To		From	To		From	To	
20	25	5	183	191	25	362	370	45
26	32	6	192	199	26	371	379	46
33	40	7	200	208	27	380	388	47
41	47	8	209	217	28	389	397	48
48	55	9	218	226	29	398	406	49
56	63	10	227	235	30	407	415	50
64	71	11	236	244	31	416	424	51
72	79	12	245	253	32	425	434	52
80	88	13	254	262	33	435	443	53
89	96	14	263	270	34	444	452	54
97	104	15	271	279	35	453	461	55
105	113	16	280	288	36	462	470	56
114	121	17	289	297	37	471	479	57
122	130	18	298	306	38	480	489	58
131	138	19	307	315	39	490	498	59
139	147	20	316	324	40	499	500	60
148	156	21	325	333	41	See calculation in R18-11-605.D.1.b.ii if dataset is larger than 500 samples.		
157	164	22	334	343	42			
165	173	23	344	352	43			
174	182	24	353	361	44			